



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,375	04/16/2004	Yoshiaki Hirai	119470	8092
25944 7590 03/07/2007 OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER CHEUNG, VICTOR	
			ART UNIT 3714	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/07/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

ED

Office Action Summary	Application No.	Applicant(s)	
	10/825,375	HIRAI, YOSHIAKI	
	Examiner	Art Unit	
	Victor Cheung	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/16/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: SOCCER GAME METHOD FOR USE IN GAME APPARATUS, INVOLVES RECOGNIZING AREAS PERTAINING TO POWER OF CHARACTER GROUP, BASED ON CALCULATED ARRIVAL TIMES OF CHARACTERS UP TO SAMPLE POINTS.

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it is not written in a narrative form. The abstract is written in a long run-on sentence similar to a claim. Correction is required. See MPEP § 608.01(b).

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claims 1-3, 5, 11, 15, and 16 are objected to because of the following informalities:
- Re Claim 1, Line 14: "the set sample points" should be --the set plurality of sample points--.
 - Re Claim 2, Line 3: "the set sample points" should be --the set plurality of sample points--.
 - Re Claim 3, Line 4: "the set sample points" should be --the set plurality of sample points--.
 - Re Claim 5, Line 4: "the plurality of set sample points" should be --the set plurality of sample points--.
 - Re Claim 5, Line 6: "sample point" should be --sample points--.
 - Re Claim 11, Lines 2 and 5: "the power distribution" should be --the calculated power distribution--.
 - Re Claim 15, Line 1: "15" should be --15--.
 - Re Claim 16, Line 15: "the plurality of set sample points" should be --the set plurality of sample points--.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Art Unit: 3714

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-11, 15, 17 and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Re Claims 1-11, 15, 17, and 18: Claim 1 claims a method comprising setting a plurality of sample points, calculating a position, calculating an arrival time, calculating a power distribution, and outputting a geographical power state. The method steps claimed do not belong to any of the four statutory categories of process, machine, manufacture, or composition of matter. The method comprises an abstract idea including a series of calculations, and there is no physical transformation present, only a transformation of data.

There is also no useful, concrete, and tangible result. The end result of the method is the “outputting a geographical power state of the game space based on the calculated power distribution according to a predetermined output method” (lines 20-22). Since the outputting method is broadly claimed without any level specificity, any outputting method can reasonably be implemented, including outputting the geographical power state as a signal to a hard disk or a change in voltage to power meter.

As evidenced by claims 12-14, which teach that the outputting method involves a visual image or audible sound, claim 1 does not provide any limitation to provide a tangible real world result.

Claims 2-11, 15, 17, and 18 are dependent on claim 1.

Re Claim 17: A “data signal embodied in a carrier wave” is claimed. Data signals and carrier waves, even though the information encoded within them may be functional, do not fall under any of the four statutory categories set forth by 35 U.S.C. 101 or any of the three categories of nonstatutory subject matter currently specified by the Supreme Court.

Since a carrier wave is not a tangible, physical article or object to constitute a manufacture, and it is not a machine, process, or composition of matter, Claim 17 does not fall within a statutory category of invention.

Re Claims 18: A “program” is claimed. A program (interpreted to be software or computer code to be executed), even when encoded with functional descriptive material, claimed without an associated physical medium or device, lacks any practical application, and therefore is not statutory subject matter.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 3714

- Re Claim 9: Claim 9 recites the limitation “the character being capable of arriving earliest at each of the plurality of sample points” in lines 5-6. In light of the specification, it is unclear how this is even possible. For a character to be capable of arriving earliest at each of the plurality of sample points, there can only be one character on the entire pitch; it is already stated in claim 1 that there are a plurality of sample points and a plurality of characters.
- Appropriate correction is required.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 3, 6, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Re Claim 1 Lines 12 and 22; Claim 3 Line 2; Claim 6 Line 3; Claim 11 Lines 3 and 6; Claim 13 Line 3; Claim 16 Lines 1, 12, and 23: The term “predetermined” renders the claims indefinite. It should be made clear how, and to what extent, the limitations following the phrase are predetermined.
- Re Claim 3: Claim 3 recites the phrase “calculating the arrival time of each of the plurality of characters from the calculated position to the selected sample point” in lines 6-8. However, this is not possible. Each of the plurality of characters has a single calculated position that is almost always each a different calculated position. Therefore, it is not possible to calculate the arrival time of each of the characters because they do not

- share the calculated position. It is interpreted that from each calculated position, the respective character's arrival time to a sample point within a predetermined distance from the calculated position is calculated.
- Re Claim 6: the phrase "at least" in line 3 of the claim renders the claim indefinite because it is unclear how the plurality points can be set at "at least a predetermined interval in the game space."
 - Re Claim 8: Claim 8 recites the limitation "based on the arrival time of each of the plurality of sample points" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim. The calculated arrival time, as disclosed in claim 1 which claim 8 is dependent on, is an arrival time needed for the plurality of characters to arrive at the plurality of sample points. An arrival time of each of the plurality of sample points is never calculated or determined. For this office action, it is interpreted that the limitation read as: --based on the arrival time needed for each of the plurality of characters to arrive at each of the set plurality of sample points--.
 - Re Claim 9: Claim 9 recites the limitation of "calculating the power distribution for each of the plurality of character groups in accordance with a character group to which a character belongs, the character being capable of arriving earliest at each of the plurality of sample points." It is unclear what this limitation is stating. Claim 9 includes the step of calculating the power distribution for each of the plurality of character groups; it is not clear how this step is performed in accordance with a character group to which a character belongs.

For this office action, it is interpreted that claim 9 read as: --The method as claimed in claim 8, wherein the calculating the power distribution includes calculating the power distribution for each of the plurality of character groups--.

- Appropriate correction is required.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 1-2, 4-5, 8-9, 11-13, 15, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258).

Re Claim 1: Re Claim 1: Rupert et al. disclose a game executing method for making a computer device execute a given game by generating an image of a game space, and for analyzing and outputting a power distribution of a character group in the game space, the character group comprising a plurality of characters movable in the game space, the method comprising setting a plurality of sample points in the game space (Col. 4, Lines 55-64), calculating a position of each of the plurality of characters at a time that each of the plurality of characters has maintained a current moving condition for a predetermined time (Col. 6, Lines 27-32), calculating the power distribution of the character group based on the sample points (Col. 6, Lines 60-65; Col. 4, Lines 58-64), and

outputting a geographical power state of the game space based on the calculated power distribution according to a predetermined output method (Col. 8, Lines 47-49).

However, Rupert et al. do not specifically disclose calculating arrival times of the characters to the plurality of sample points from the calculated positions as starting points.

Rupert et al. teach that the Voronoi regions used are a collection of points that a character is closest to. The player may be closest in distance, or the player may be closest based on non-linear measurements such as momentum, speed, and direction (Col. 4, Lines 58-64; Col. 6, Lines 27-40).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the arrival times of the characters to the plurality of sample points from the calculated positions as starting points. The Voronoi regions depict areas that the character is able to reach faster than any other character, i.e. it is the result of a comparison of the arrival times of the characters. By calculating the arrival times of the characters, it can be more easily determined which characters can reach an area faster.

Re Claim 2: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. additionally teach taking into account values such as strength, agility, and speed attributes to more closely resemble the variations of a soccer game (Col. 9, Lines 42-60).

Re Claim 4: Rupert et al. teach the limitations of claim 1, as discussed above.

However, Rupert et al. do not specifically teach selecting a character of which the arrival time is to be calculated based on the distance from each of the plurality of set sample points to the calculated positions.

Rupert et al. teach the calculating the arrival time for each of the characters on the soccer pitch (as discussed above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select a character. By selecting a character, the character can then be the object of any determinations or calculations that must be performed.

Re Claim 5: Rupert et al. teach the limitations of claim 1, as discussed above.

However, Rupert et al. do not specifically teach calculating a predominance degree or calculating the power distribution based on the calculated predominance degree.

Rupert et al. do teach calculating the arrival time and calculating the power distribution based on the arrival time (as discussed above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate a predominance degree and then calculate the power distribution using the predominance degree. Because the predominance degree is inversely linked with the arrival time, where the predominance degree is higher as the arrival time of a character capable of arriving earliest is shorter, it is just a mathematical manipulation of the arrival time. Both values give the same result, but one value is favorable as a lower number, and the other value is favorable as a higher number. By using a value that increases as a situation becomes more favorable, the value is more intuitively recognized.

Re Claim 8: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. additionally teach that the character group includes a plurality of character groups and calculating the power distribution for each of the plurality of character groups (Fig. 1; Col. 2, Lines 1-13; Col. 6, Lines 4-9).

Re Claim 9: Please see 35 U.S.C. 112, second paragraph, rejection above.

Rupert et al. teach the limitations of claim 8, as discussed above.

Rupert et al. teach calculating the power distribution for each of the plurality of character groups (Col. 6, Lines 4-9).

Re Claim 11: Rupert et al. teach the limitations of claim 10, as discussed above.

Rupert et al. additionally teach judging whether the calculated power distribution satisfies a predetermined storing condition and storing the calculated power distribution if the calculated power distribution satisfies the predetermined storing condition (Col. 8, Lines 1-14).

Re Claim 12: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. additionally teach identifiably displaying a non-power area of the character group as a space area on the image of the game space based on the calculated power distribution (Fig. 1). Power areas of a character group are determined and displayed; non-power areas of a character group are subsequently power areas of the alternate character group.

Re Claim 13: Rupert et al. teach the limitations of claim 12, as discussed above.

Rupert et al. additionally teach that the plurality of characters, setting the plurality of sample points, calculating the power distribution, and identifiably displaying a portion of the space area on a terrain (Figs. 1, 5, 6; Col. 2, Lines 8-13).

Re Claims 15 and 18: Rupert et al. teach the gaming method of claim 1, as discussed above.

Rupert et al. additionally teach an information storage medium having information recorded thereon, wherein when the information is loaded onto an operating apparatus, the operating apparatus executes the method as claimed in claim 1 (Col. 3 Line 63-Col. 4 Line 13).

Re Claims 17: Rupert et al. teach the gaming method of claim 1, as discussed above.

Rupert et al. additionally teach that the information for performing the gaming method can be obtained over a network or an electronic channel (Col. 4, Lines 4-13).

14. Claim 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258), as applied to claim 1 above, and further in view of Ariano et al. (US Patent No. 3,874,669).

Re Claim 3: Rupert et al. teach the limitations of claim 1, as discussed above.

However, Rupert et al. do not specifically teach that from each calculated position, the respective character's arrival time to a sample point selected within a predetermined distance from the calculated position is calculated.

Rupert et al. teach the use of Voronoi cells, in which a Voronoi site is closer to every point in a Voronoi cell than any other Voronoi site (Col. 3, Lines 1-10)

Ariano et al. teach dividing a game space into a plurality of zones in which a character from each team is active (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the arrival times within a predetermined distance from the calculated positions of each character. It is well known in the art that in the game of soccer/football that each character may be assigned a specific zone or region of the pitch and that physically and mathematically, one character cannot have an arrival time to a distant sample point than that of a character that is much closer to that sample point. Limiting a sample area to a predetermined distance from a calculated position creates a more realistic situation, as the arrival time would not need to be calculated for a distance much larger than the surrounding area of the character.

Re Claim 6: Rupert et al. teach the limitations of claim 1, as discussed above.

However, they do not specifically teach setting the plurality of sample points at a predetermined interval in the game space.

Ariano et al. teach dividing a game space into a plurality of zones and dividing the zones in a grid (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to set the plurality of sample points at a predetermined interval in the game space. By setting the plurality of sample points at a predetermined interval, the entire soccer pitch can be covered with sample points, and the positioning of the sample points can be set in an orderly pattern.

Re Claim 7: Rupert et al., as modified by Ariano et al., teach the limitations of claim 6, as discussed above.

However, they do not specifically teach sectioning the game space into at least two kinds of a plurality of areas and setting the plurality of sample points in the plurality of sectioned areas.

Ariano et al. teach dividing a game space into a plurality of zones (Fig. 1).

Rupert et al. additionally teach that the analyses can be performed with different sets of players, with different geometric properties of the pitch and game (Col. 5, Lines 32-53; Col. 6, Lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to section the game space and then set the plurality of sample points in the sectioned areas. By sectioning the game space, different rules and situations of the game can be applied, reducing the number of unnecessary calculations required.

15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258), as applied to claim 1 above, and further in view of Murata et al. (US Patent No. 5,735,743).

Re Claim 14: Rupert et al. teach the limitations of claim 1, as discussed above.

However, they do not specifically teach an output of a voice indicating a position of a space area corresponding to a non-power area of the character group and a voice indicating that the position of the space area is a space area.

Murata et al. teach a gaming machine which can execute play-by-play announcements by a sound generator (Col. 1, Lines 54-57; See also Fig. 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the play-by-play announcements of Murata et al. in the game of Rupert et al. By

Art Unit: 3714

audibly announcing the game status, the player can be constantly updated of the situations in the game.

16. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rupert et al. (US Patent No. 6,558,258) as applied to claim 1 above, and further in view of Takatsuka (US Patent No. 6,149,520).

Re Claim 10: Rupert et al. teach the limitations of claim 1, as discussed above.

Rupert et al. teach outputting the calculated power distribution (as discussed above), and storing the calculated power distribution (Col. 8, Lines 1-14).

However, they do not specifically teach outputting the stored power distribution.

Takatsuka teaches that graphical information can be stored, where the graphical information can be later read and displayed (Col. 4, Lines 51-60).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to output the stored power distribution. Once stored, the stored power distribution serves no purpose to a player playing the gaming apparatus. Outputting the stored power distribution allows the player to review situations that may become pertinent in the future.

Re Claim 16: Note that as claimed, claim 16 sets forth a game apparatus with sections for executing the gaming method of claim 1.

Rupert et al. teach the limitations of claim 1, as discussed above. Rupert et al. also teach a computer game hardware system comprising a console (Fig. 2, Reference No. 102) comprising a

processor (Fig. 2, Reference No. 110), a graphics processor (Fig. 2, Reference No. 116), and program code storage (Fig. 2, Reference No. 112) for executing the method of claim 1.

However, they do not specifically teach a point setting section, an inertia calculating section, an arrival time calculating section, and a distribution calculating section.

Takatsuka teaches a game apparatus for controlling a character in a video soccer game, including calculating a character's future position, calculating angles and distances between a character and the ball and an opponent character, including different sections for each of the processing and calculating method steps (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a section of the processor of Rupert et al. be used for each method step. By having a section for each step that has to be calculated, the entire process can be pipelined and work faster and more efficiently.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Nakagawa et al. disclose a game and apparatus wherein statistical parameters for individual players are used to affect how the game is played.
- Shur et al. disclose a computer based system and method for storing rosters and situation drill data of a soccer game that can be later displayed from a memory.

Art Unit: 3714

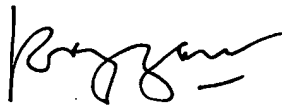
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Cheung whose telephone number is (571) 270-1349. The examiner can normally be reached on Mon-Thurs, 8-4:30, and every other Fri, 8-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VC

3/2/07


KIM NGUYEN
PRIMARY EXAMINER